

# CARBOHYDRATE RESEARCH, VOL. 162 (1987)

## AUTHOR INDEX

- BACIC, A., 85  
 BAGGETT, N., 153  
 BAJPAI, K. S., 271  
 BRANDSTETTER, H. H., 1  
 BROSSMER, R., 294
- CALLAGHAN, P. T., 33  
 CHEANG KUAN LEE, 53  
 CHIU, A. K. B., 316  
 CHRISTIAN, R., 1  
 CHÚJO, R., c4  
 CHURMS, S. C., 85  
 COHEN, P. B., 85  
 COLONNA, P., 277
- DAS, A., 257  
 DAX, K., 13  
 DEROME, A. E., 227  
 DIÁNEZ, M<sup>a</sup> J., 181  
 DU, J., 217  
 DZIEDZIC, S. Z., 316
- ESCHENFELDER, V., 294
- FERMANDJIAN, S., 23  
 FINCHER, G. B., 85  
 FUENTES MOTA, J., 307  
 FUJISHIMA, Y., 127, 247  
 FUJITA, M., 127, 247
- GARCIA FERNANDEZ, J. M., 307  
 GARCÍA-MARTÍN, M<sup>a</sup> DE G., 181  
 GASCH, C., 181  
 GHOSH, R., 257  
 GLÄNZER, B. I., 13  
 GOLIC, L., 171  
 GOMEZ MONTERREY, I. M., 307  
 GÓMEZ-SÁNCHEZ, A., 181  
 GOTTLIEB, H. E., 145  
 GUPTA, D. S., 271
- HASEGAWA, A., 126, 247  
 HERZIG, J., 145  
 HOUGH, L., 316
- I'ANSON, K. J., 277  
 INOUE, Y., c4  
 ISHIDA, H., 127
- JANN, B., 271
- JANSSON, P.-E., 111  
 JENNER, M. R., 199
- KALICHEVSKY, M. T., 277, 323  
 KANTOCI, D., 227  
 KEGLEVIĆ, D., 227  
 KEINAN, E., 145  
 KHAN, R., 199, 209, 298  
 KHAYAT, E., 329  
 KIEBOOM, A. P. G., 65  
 KISO, M., 127, 247  
 KOIKE, K., 237  
 KOJIĆ-PRODIĆ, B., 171  
 KONDO, Y., 159  
 KONG, F., 167, 217  
 KORYTNYK, W., 41
- LEFRANCIER, P., 23  
 LELIEVRE, J., 33  
 LEVEL, M., 23  
 LEWIS, J. A., 33  
 LINDBERG, B., 111  
 LINDSETH, H., 199  
 LINDQUIST, U., 111  
 LJUNGBERG, J., 111  
 LOGANATHAN, D., 117  
 LÓPEZ CASTRO, A., 181
- MACHER, I., 79  
 MAEJI, N. J., c4  
 MILES, M. J., 277  
 MORRIS, V. J., 277  
 MUFTI, K. S., 199
- NAGARAJAN, M., 141  
 NAKAHARA, Y., 237  
 NAKASHIMA, R., c1  
 NIEMELÄ, K., 303  
 NUDELMAN, A., 145
- OGAWA, T., 237  
 OGAWA, Y., 127, 247  
 OKANO, A., c1  
 ORFORD, P. D., 277  
 ORTIZ MELLET, M. C., 307
- PATEL G., 199, 209, 298  
 PERLY, B., 23  
 PETERS, J. A., 65  
 POTTI, G. G., 41  
 PRADERA ADRIAN, M. A., 307

RAO, M. V., 141  
RICHARDSON, A. C., 316  
RING, S. G., 277, 323  
RUŽIĆ-TOROŠ, Ž., 171

SAIMOTO, H., c1  
SCHULZ, G., 1, 13  
SHANG, H., 217  
SHARMA, M., 41  
SHARMA, S. C., 271  
SHIGEMASA, Y., c1  
SIKDER, S. K., 257  
SIMMONDS, R. J., 153  
SIMMONS, O. D., 41  
STEPHEN, A. M., 85  
STERLING, J., 145  
STRIBBLEHILL, P., 153  
SUGIMOTO, M., 237  
SUZUKI, Y., 95

TAKEO, K., 95  
TANAKA, S., 127, 247  
TOMIĆ, S., 171  
TOUFEILI, I. A., 316  
TRIVEDI, G. K., 117

VAN BEKKUM, H., 65  
VAN DUIN, M., 65  
VYPLEL, H., 13

WU, X., 167

ZBIRAL, E., 1

## CARBOHYDRATE RESEARCH, VOL. 162 (1987)

## SUBJECT INDEX

- 2-Acetamido-2-deoxy-D-galactopyranosyl-threonine-containing peptides, the role of the *N*-acetyl group in determining the conformation of, c4
- 2-Acetamido-2,6-dideoxy-6-fluoro-D-galactose, synthesis of, 41
- N*-Acetyl group, the role of, in determining the conformation of 2-acetamido-2-deoxy-D-galactopyranosyl-threonine-containing peptides, c4
- Acetyl hypofluorite, reaction of pyranoid and furanoid glycals with, 13
- N*-Acetylneuraminic acid and epimers at C-7, C-8, and C-7,8, side-chain conformation of, 1
- Alkyl glycopyranosides and glycofuranosides of 2-amino-2-deoxy-D-glucose, synthesis of, 181
- 2-Amino-2-deoxy-D-glucose, phenacylthiourea and *N*-thiazolyl derivatives of, 307
- 2-Amino-2-deoxy-D-glucose, synthesis of alkyl glycopyranosides and glycofuranosides of, 181
- Amylopectin, a comparison of the size and shape of, with that of  $\beta$ -limit dextrin, using pulsed field-gradient nuclear magnetic resonance and analytical ultracentrifugation, 33
- Amylopectin, the gelation and crystallisation of, 277
- Amylose and amylopectin in aqueous solution, incompatibility of, 323
- Arabinogalactan-protein from *Lolium multiflorum*, fine structure of the, 85
- 1-Arabinopyranoside, methyl  $\alpha$ - and  $\beta$ -, partial tosylation of, 159
- Asymmetric reduction of ketones by using hydridoaluminate complexes of symmetrical, chiral, branched-chain alditol derivatives, 153
- Borate-polyhydroxycarboxylate systems, synergic coordination of calcium in, 65
- Branched-chain sucrose; synthesis and Wittig reaction of the 1'-aldehyde derivative of sucrose, 209
- Calcium, synergic coordination of, in borate-polyhydroxycarboxylate systems, 65
- Carbohydrate portion of the sialoglycopeptide isolated from the skin of the fish *Mastacembalus armatus*, structure of the, 257
- Cassia alata* seed, structure of a galactomannan from, 271
- Cerebrosides, total synthesis of, 237
- Chemistry and Function of Pectins (book review), c1
- Chlorodeoxysucrose, synthesis of an intensely sweet, and mechanism of 4'-chlorination of sucrose by sulphuryl chloride, 53
- Chromogenic substrate for sialidases, synthesis of *p*-nitrophenyl 5-acetamido-3,5-dideoxy- $\alpha$ -D-glycero-D-galacto-2-nonulopyranosidonic acid as a, 294
- Comparative <sup>1</sup>H-n.m.r. study of MurNAc-L-Ala-D-iGln (MDP) and its analogue murabutide: evidence for a structure involving two successive  $\beta$ -turns in MDP, 23
- Comparison of the size and shape of  $\beta$ -limit dextrin and amylopectin using pulsed field-gradient nuclear magnetic resonance and analytical ultracentrifugation, 33
- Convenient synthesis of 2-deoxy-2-[(*R*)-3-hydroxytetradecanamido]-3-*O*-[(*R*)-3-hydroxytetradecanoyl]- $\alpha$ -D-glucopyranose 1-phosphate (lipid X), 79
- Convenient synthetic route to the disaccharide repeating-unit of peptidoglycan, 227
- Crystal and molecular structures of substituted  $\alpha$ -D-glucopyranosides, 171
- Crystallisation of amylopectin, the gelation and, 277
- Deacetylation of anomeric sugar acetates with tin alkoxides, selective, 145
- Degradation of xylan with alkali, the formation of 3-hydroxytetrahydrofuran-3-carboxylic acid by the, 303
- 2-Deoxy-2-[(*R*)-3-hydroxytetradecanamido]-3-*O*-[(*R*)-3-hydroxytetradecanoyl]- $\alpha$ -D-glucopyranose 1-phosphate (lipid X), a convenient synthesis of, 79
- Determination of the activity of sucrose phosphate synthase by measurement of the release of UDP by h.p.l.c., 329
- 2,7-Dioxabicyclo[4.1.0]heptanes, synthesis of substituted, 217
- Disaccharide repeating-unit of peptidoglycan, a convenient synthetic route to the, 227
- Epoxides of sucrose, synthesis of 4'-derivatives of sucrose by ring-opening reactions of, 199
- Fine structure of the arabinogalactan-protein from *Lolium multiflorum*, 85
- 6-Fluoro-D-galactose, 2-acetamido-2,6-dideoxy-, synthesis of, 41

- Formation of 3-hydroxytetrahydrofuran-3-carboxylic acid by the degradation of xylan with alkali, 303
- Formose reaction, formation of DL-glycero-tetrolase in, c1
- Galactomannan from *Cassia alata* seed, structure of a, 271
- $\alpha$ -D-Galactopyranose, 1,2-anhydro-, 3,4,6-tri-*O*-benzyl- and 3,4,6-tri-*O*-(*p*-bromobenzyl)-, synthesis of, 217
- D-Galactose, 2-acetamido-2,6-dideoxy-6-fluoro, synthesis of, 41
- Gelation and crystallisation of amylopectin, 277
- $\beta$ -D-Glucopyranosides, aryl, benzoylated, synthesis of, 117
- $\alpha$ -D-Glucopyranosides, crystal and molecular structures of substituted, 171
- $\beta$ -D-Glucopyranosyl substituted-cinnamates, synthesis of, 117
- D-Glucosamine, 4-*O*-phosphono-, optically active derivatives of, related to the nonreducing-sugar subunit of bacterial lipid A, synthesis of the, 127
- D-Glucosylation, phase-transfer-catalyzed, 117
- Glycols, reaction of acetyl hypofluorite with pyranoid and furanoid, 13
- DL-glycero-tetrolase, formation in the formose reaction of, c1
- Hydridoaluminate complexes of symmetrical chiral branched-chain alditol derivatives, asymmetric reduction of ketones by using, 153
- 3-Hydroxytetrahydrofuran-3-carboxylic acid, the formation of, by the degradation of xylan with alkali, 303
- Improved synthesis of 2,3,4-tri-*O*-acetyl-1,6-anhydro- $\beta$ -D-glucopyranose (levoglucosan triacetate), 141
- Incompatibility of amylose and amylopectin in aqueous solution, 323
- Kojitetraose and kojipentaose, synthesis of, 95
- Levoglucosan triacetate (2,3,4-tri-*O*-acetyl-1,6-anhydro- $\beta$ -D-glucopyranose), an improved synthesis of, 141
- $\beta$ -Limit dextrin, a comparison of the size and shape of, with that of amylopectin, using pulsed field-gradient nuclear magnetic resonance and analytical ultracentrifugation, 33
- Lipid A, bacterial, synthesis of the optically active 4-*O*-phosphono-D-glucosamine derivatives related to the nonreducing-sugar subunit of, 127
- Lipid A, bacterial, the nonreducing-sugar subunit analogs of, carrying the amide-bound (3*R*)-3-(acyloxy)tetradecanoyl group, synthesis of, 247
- Lipid X [2-deoxy-2-[(*R*)-3-hydroxytetradecan-amido]-3-*O*-[(*R*)-3-hydroxytetradecanoyl]- $\alpha$ -D-glucopyranose 1-phosphate], a convenient synthesis of, 79
- Lolium multiflorum*, fine structure of the arabinogalactan-protein from, 85
- $\alpha$ -D-Mannopyranoside, methyl 4,6-di-*O*-benzyl-, selective benzoylation and tosylation of, 167
- Measurement of the release of UDP by h.p.l.c., determination of the activity of sucrose, phosphate synthase by, 329
- 4-*C*-Methyl and 4-*C*-allyl derivatives of sucrose, synthesis of, 316
- 4'-*C*-Methyl-galacto-sucrose, synthesis of 4,1',6'-trichloro-4,1',4',6'-tetra-deoxy-, 298
- MurNAc-L-Ala-D-iGln (MDP) and its analogue murabutide, a comparative <sup>1</sup>H-n.m.r. study of, 23
- Neuraminic acid, *N*-acetyl-, and epimers at C-7, C-8, and C-7,8, side-chain conformation of, 1
- p*-Nitrophenyl 5-acetamido-3,5-dideoxy- $\alpha$ -D-glycero-D-galacto-2-nonulopyranosidonic acid, synthesis of, 294
- <sup>1</sup>H-N.m.r. study of MurNAc-L-Ala-D-iGln (MDP) and its analogue murabutide, a comparative, 23
- Oligosaccharides having (1 $\rightarrow$ 2)- $\alpha$ -D-glucosidic linkages, synthesis of, 95
- Partial tosylation of methyl  $\alpha$ - and  $\beta$ -L-arabinopyranoside, 159
- Peptidoglycan, a convenient synthetic route to the disaccharide repeating-unit of, 227
- Phase-transfer-catalyzed D-glucosylation: synthesis of benzoylated aryl  $\beta$ -D-glucopyranosides and  $\beta$ -D-glucopyranosyl substituted-cinnamates, 117
- Phenacylthiourea and *N*-thiazolyl derivatives of 2-amino-2-deoxy-D-glucose, 307
- Polysaccharide from *Streptococcus pneumoniae* types 15B and 15C, structural studies of the capsular, 111
- Reaction of acetyl hypofluorite with pyranoid and furanoid glycols, 13
- Reduction of ketones by using hydridoaluminate complexes of symmetrical chiral branched-chain alditol derivatives, asymmetric, 153
- Ring-opening reactions of sucrose epoxides and synthesis of 4'-derivatives of sucrose, 199

- Role of the *N*-acetyl group in determining the conformation of 2-acetamido-2-deoxy-D-galactopyranosyl-threonine-containing peptides 4
- Selective benzylation and tosylation of methyl 4,6-di-*O*-benzyl- $\alpha$ -D-mannopyranoside, 167
- Selective deacetylation of anomeric sugar acetates with tin alkoxides, 145
- Sialic acid, side-chain conformation of, 1
- Sialoglycopeptide isolated from the skin of the fish *Mastacembalus armatus*, structure of the carbohydrate portion of the, 257
- Sphinganine, (2*S*, 3*R*, 4*E*)-1-*O*- $\beta$ -D-galactopyranosyl-*N*-(2'*R* and 2'*S*)-2'-hydroxytetra-cosanoyl-, 237
- Streptococcus pneumoniae* types 15B and 15C, structural studies of the capsular polysaccharide from, 111
- Structural studies of the capsular polysaccharide from *Streptococcus pneumoniae* types 15B and 15C, 111
- Structure of a galactomannan from *Cassia alata* seed, 271
- Structures of substituted  $\alpha$ -D-glucopyranosides, crystal and molecular, 171
- Structure of the carbohydrate portion of the sialoglycopeptide isolated from the skin of the fish *Mastacembalus armatus*, 257
- Sucrose epoxides, synthesis of 4'-derivatives of sucrose by ring-opening reactions of, 199
- Sucrose, mechanism of 4'-chlorination by sulphuryl chloride of, and synthesis of an intensely sweet chlorodeoxysucrose, 53
- Sucrose phosphate synthesis, determination of the activity of, by measurement of the release of UDP by h.p.l.c., 329
- Sucrose, synthesis and Wittig reaction of the 1'-aldehyde derivative of, 209
- Sucrose, synthesis of 4-*C*-methyl and 4-*C*-allyl derivatives of, 316
- Synergic coordination of calcium in borate-poly-hydroxycarboxylate systems, 65
- Synthesis and Wittig reaction of the 1'-aldehyde derivative of sucrose, 209
- Synthesis of alkyl glyco-pyranosides and -furanosides of 2-amino-2-deoxy-D-glucose and crystal structure of 2-deoxy-2-[(4,4-dimethyl-2,6-dioxycyclohexyldienemethyl)amino]- $\alpha$ -D-glucopyranose, 181
- Synthesis of an intensely sweet chlorodeoxysucrose: mechanism of 4'-chlorination of sucrose by sulphuryl chloride, 53
- Synthesis of kojitetraose and kojipentaose, 95
- Synthesis of 4-*C*-methyl and 4-*C*-allyl derivatives of sucrose, 316
- Synthesis of *p*-nitrophenyl 5-acetamido-3,5-di-deoxy- $\alpha$ -D-glycero-D-galacto-2-nonulopyranosidonic acid, a chromogenic substrate for sialidases, 294
- Synthesis of the nonreducing-sugar subunit analogs of bacterial lipid A carrying the amide-bound (3*R*)-3-(acyloxy)tetradecanoyl group, 247
- Synthesis of the optically active 4-*O*-phosphono-D-glucosamine derivatives related to the non-reducing-sugar subunit of bacterial lipid A, 127
- Synthesis of 2,3,4-tri-*O*-acetyl-1,6-anhydro- $\beta$ -D-glucopyranose (levoglucosan triacetate), an improved, 141
- Synthesis of 4,1',6'-trichloro-4,1',4',6'-tetra-deoxy-4'-*C*-methyl-galacto-sucrose, 298
- N*-Thiazolyl and phenacylthiourea derivatives of 2-amino-2-deoxy-D-glucose, 307
- Tin alkoxides, selective deacetylation of anomeric sugar acetates with, 145
- Total synthesis of cerebrosides (2*S*, 3*R*, 4*E*)-1-*O*- $\beta$ -D-galactopyranosyl-*N*-(2'*R* and 2'*S*)-2'-hydroxytetra-cosanoylsphinganine, 237
- 4,1',6'-Trichloro-4,1',4',6'-tetra-deoxy-4'-*C*-methyl-galactose-sucrose, synthesis of, 298
- Vitamin B<sub>1</sub>, formose reaction in the presence of, c1